

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
66512-A/JPW/GJG Serial No.  
10/084,388INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)Applicants  
Stephan Kopytek and Virginia W.  
CornishFiling Date  
February 25, 2002Group  
1614TECH CENTER  
1600

SEP 16 2002



RECEIVED

## U.S. PATENT DOCUMENTS

M. Manich

8/8/02

Examiner Initial	Document Number							Date	Name	Class	Subclass	Filing Date if Appropriate
	5	9	2	8	8	6	8					
M	5	9	2	8	8	6	8	July 27, 1999	Liu et al.			8/8/02
M	5	7	3	6	3	4	3	April 7, 1998	Landry			
M	5	4	6	8	6	1	4	Nov. 21, 1995	Fields et al.			
M	5	3	1	4	8	1	7	May 24, 1994	Schultz, P.			
M	5	1	9	4	5	9	4	March 16, 1993	Kwawli et al.			
Document Number				Date		Country		Class	Subclass	Translation		
								Yes	No			
M	0	1	5	3	3	5	5	Jul 26, 2001	WO	PCT		
M	9	9	1	0	5	1	0	March 4, 1999	WO	PCT		
M	9	9	1	0	5	0	8	March 4, 1999	WO	PCT		
M	9	8	1	3	3	5	3	April 2, 1998	WO	PCT		
M	9	7	3	1	1	1	3	August 28, 1997	WO	PCT		
M	9	6	3	0	5	4	0	October 3, 1999	WO	PCT		
M	0	7	4	2	0	1	5	November 13, 1996	EP			
M	Austin DJ, et al. Proximity versus allostery: the role of regulated protein dimerization in biology. 1994. Chem Biol. 1(3): 131-6 (Exhibit 13)											
M	Belshaw PJ, et al. Controlling protein association and subcellular localization with a synthetic ligand that induces heterodimerization of proteins. 1996. Proc. Natl Acad Sci USA 93(10):4604-7 (Exhibit 14)											

EXAMINER

M. Manich

DATE CONSIDERED

7/8/01

Applicants: Stephan Kopytek and Virginia W.

Cornish

U. S. Serial No.: 10/084,388

Filed: February 25, 2002

Group Art Unit: 1614

\*EXAMINER: Initial if reference considered, whether or not cited.  
 Draw line through citation if not in conformance and not considered.  
 communication to applicant.

Exhibit A

RECEIVED

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office			Atty. Docket No. 66512-A/JPW/GJG		Serial No. 10/084,388	
<b>INFORMATION DISCLOSURE STATEMENT</b> (Use several sheets if necessary)					Applicants Stephan Kopytek and Virginia Cornish			
		Filing Date February 25, 2002		Group 1614 (436)				
<b>U.S. PATENT DOCUMENTS</b>								
Initial <i>M. Manich</i>	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate		
<b>FOREIGN PATENT DOCUMENTS</b>								
	Document Number	Date	Country	Class	Subclass	Translation		
						Yes	No	
<i>MM</i>	Belshaw PJ, et al. Controlling programmed cell death with a cyclophilin-cyclosporin-based chemical inducer of dimerization. 1996. Chem. Biol. 3:731-738 (Exhibit 15)							
<i>MM</i>	Choi J, et al. Structure of the FKBP-12-Rapamycin complex interacting with the binding domain of human FRAP. 1996. Science 273(5272):239-42 (Exhibit 16)							
<i>MM</i>	DeGrado WF, et al. Screening, selection and design: standing at the crossroads in three dimensions. 1997. Current Opinion in Structural Biology 7:455-456 (Exhibit 17)							
<i>MM</i>	Diver SR, et al. Single-step synthesis of cell-permeable protein dimerizers that activate signal transduction and gene expression. 1997. J. Am. Chem. Soc. 119: 5106-5109 (Exhibit 18)							
EXAMINER <i>M. Manich</i>		DATE CONSIDERED		2/18/04				
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw Line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Page 3 of 9

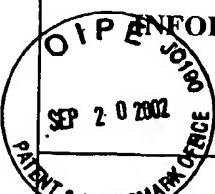
RECEIVED

**\*EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
66512-A/JPW/GJGSerial No.  
10/084388SEP  
23 2002

## Applicants

Stephan Kopytek and Virginia W.  
CornishFiling Date  
February 25, 2002Group  
16A 1636OPI INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)RECEIVED  
TECH CENTER 2002  
MAR 3 2002  
M. MARCH

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

## FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

M	Klemm JD, et al. Dimerization as a regulatory mechanism in signal transduction. 1998. Annu. Rev. Immunol. 16:569-92 (Exhibit 22)
M	Liberles SD, et al. Inducible gene expression and protein translocation using nontoxic ligands identified by a mammalian three-hybrid screen. 1997. Proc. Natl. Acad. Sci. USA 94(15):7825-7830 (Exhibit 23)
M	Licitra EJ, et al. A three-hybrid system for detecting small ligand-protein receptor interactions. 1996. Proc. Natl. Acad. Sci. USA 93(26):12817-12821 (Exhibit 24)

EXAMINER M. March DATE CONSIDERED 2/18/04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

SEP 23 2002

TECH CENTER  
1600/2900

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
66512-A/JPW/GJG Serial No.  
10/084,388INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)Applicants  
Stephan Kopytek and Virginia W.  
CornishFiling Date  
February 25, 2002 Group  
1614-1030

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

## FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

MM	Pedersen H, et al. A method for directed evolution and functional cloning of enzymes. 1998. Proc. Natl. Acad. Sci. USA 95:10523-10528 (Exhibit 25)
MM	Pruscha MN, et al. Mechanistic studies of a signaling pathway activated by the organic dimerizer FK1012. 1994. Chem. Biol. 1:163-172 (Exhibit 26)
MM	Schreiber SL. Chemical genetics resulting from a passion for synthetic organic chemistry. 1998. Bioorganic & Medicinal Chemistry 6:1127-1152 (Exhibit 27)

EXAMINER	DATE CONSIDERED
Marinich	7/8/04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

TECH CENTER 1600  
SEP 23 2002

RECEIVED

Form PTO-1449		U.S. Department of Commerce Patent and Trademark Office			Atty. Docket No. 66512-A/JPW/GJG	Serial No. 10/084,388 1600/2800
<b>INFORMATION DISCLOSURE STATEMENT</b> (Use several sheets if necessary)					Applicants Stephan Kopytek and Virginia W. Cornish	
		Filing Date February 25, 2002	Group 1614 1036			
U.S. PATENT DOCUMENTS						
Examiner Initials TRADEMARK OFFICE	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
FOREIGN PATENT DOCUMENTS						
	Document Number	Date	Country	Class	Subclass	Translation
						Yes
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)						
MM	Stockwell BR, et al. TGF-beta-signalling with small molecule FKBP12 antagonists that bind myristoylated FKBP12-TGF-beta type 1 receptor fusion proteins. 1998. Chem Biol. 5(7):385-95 (Exhibit 31)					
MM	Stockwell BR, et al. Probing the role of homomeric and heteromeric receptor interactions in TGF-beta signaling using small molecule dimerizers. 1998. Curr Biol 8(13):761-70 (Exhibit 32)					
MM	Winkler T., et al. Confocal fluorescence coincidence analysis: An approach to ultra high-throughput screening. 1998 Proc. Natl. Acad. Sci. USA 96:1375-1378 (Exhibit 33)					
MM	Yang, J., et al. Small-molecule control of insulin and PDGF receptor signaling and the role of membrane attachment. 1997 Curr. Biol. 8:11-18 (Exhibit 34)					
MM	Zlokarnik G, et al. Quatitation of transcription and clonal selection of single living cells with beta-lactamase as reporter. 1998, Science 279(5347):84-8 (Exhibit 35)					
MM	Search Report dated May 14, 2001 corresponding PCT International Application No. PCT/US01/02285 (Exhibit 36) - Not for Publication					
EXAMINER	M. Mawla	DATE CONSIDERED	7/18/04			

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

TECH CENTER 1600  
SEP 23 2002

RECEIVED

Form PTO-1449.

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
66512-A/JPW/GJGSerial No.  
10/084,138

## Applicants

Stephan Kopytek and Virginia W.  
Cornish

## Filing Date

February 25, 2002

## Group

1514(134)

O P E INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

## FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

MW	Lin, H., et al. Dexamethasone-Methotrexate: An Efficient Chemical Inducer of Protein Dimerization <i>In Vivo</i> . 2000. J.Am.Chem.Soc. 122:4247-4248 (Exhibit 37)
MW	Kopytek, S.J., et al. Chemically Induced Dimerization of Dihydrofolate Reductase by a Homobifunctional Dimer of Methotrexate. 2000. Chem Biol 7:313- 321 (Exhibit 38)
MW	U.S. Serial No. 09/768,479, filed January 24, 2001 Not for Publication (Exhibit 39)
MW	Firestone, S.M., et al. Using an AraC-Based three-hybrid system to detect biocatalysts in vivo. 2000. Nature Biotechnology. 18, 544-547 (Exhibit 40)
MW	Pelletier, J.N., et al. Oligomerization domain-directed reassembly of active dihydrofolate reductase from rationally designed fragments. 1998. Proc.Natl.Acad.Sci.USA. 95, 12141-12146 (Exhibit 41)
MW	Ladant, D., Karimova, G. Genetic systems for analyzing protein-protein interactions in bacteria. 2000. Res. Microbiol. 151, 711-720 (Exhibit 42)

EXAMINER MW March DATE CONSIDERED 3/8/04

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.

TECH CENTER 1600/2900

SEP 23 2002

RECEIVED

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark OfficeAtty. Docket No.  
66512-A/JPW/GJGSerial No.  
10/084,388

## Applicants

Stephan Kopytek and Virginia W.  
CornishFiling Date  
January 24, 2002Group  
1614INFORMATION DISCLOSURE STATEMENT  
(Use several sheets if necessary)

## U.S. PATENT DOCUMENTS

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	6 2 0 0 7 5 9	March 13, 2001	Dove et al.			
	5 9 2 5 5 2 3	July 20, 1999	Dove et al.			

## FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

MM	U.S. Serial No. 10/056,874, filed January 24, 2002 (Exhibit 45)	considered, Not for publication
MM	U.S. Serial No. 10/132,039, filed April 24, 2002 (Exhibit 46)	

EXAMINER *M. Marinich* DATE CONSIDERED *9/8/04*

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this from with next communication to applicant.



Sheet 1 of 1

Form PTO-1449

U.S. Department of Commerce  
Patent and Trademark Office

Atty. Docket No.  
66512-A/JPW/  
GJG/ACK

Serial No.  
10/084,388

**INFORMATION DISCLOSURE CITATION**  
(Use several sheets if necessary)

Applicants: Stephan Kopytek and  
Virginia W. Cornish

Filing Date  
February 25, 2002

Group  
1614-1636

**U.S. PATENT DOCUMENTS**

Examiner Initial	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate

**FOREIGN PATENT DOCUMENTS**

	Document Number	Date	Country	Class	Subclass	Translation
						Yes
						No

**OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)**

MM	Amara, J.F. et al. A Versatile Synthetic Dimerizer for the Regulation of Protein-Protein Interactions, <i>Proc. Natl. Acad. Sci. USA</i> , 1997, 94, 10618-10623 (Exhibit 1)

EXAMINER *M Manich* DATE CONSIDERED *7/8/04*

\*EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.